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## NOTE ON THE CONUS ARTERIOSUS OF MEGALOPS CYPRINOIDES (BROUSSONET).

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Since describing the conus arteriosus in *Tarpon Atlanticus*<sup>1</sup> I have been fortunate in securing a specimen of *Megalops cyprinoides*. For this I take the present opportunity of thanking Professor David Starr Jordan.

The fish in question, preserved in alcohol, measures 19 cm. (including caudal fin) so that the heart is extremely small, and is, on account of its somewhat friable condition, difficult to handle.

The conus is everywhere quite obvious from the exterior. Fig. 1, drawn from the left side, indicates that the general form of

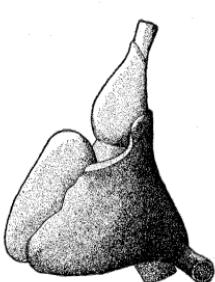


FIG. 1.

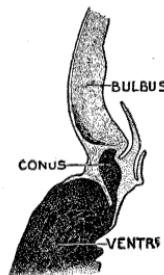


FIG. 2.

FIG. 1. Entire heart of *Megalops cyprinoides* from the left side,  $\times 3$ . A small portion of the atrium has been removed to display the conus more fully.

FIG. 2. Frontal section through the right side of the heart of *Megalops cyprinoides*, showing the relations in the conus region,  $\times 10$ .

conus and bulbus resembles that of *Amia* rather than that of *Tarpon*.

The heart was opened by a mid-ventral sagittal incision, it having been previously ascertained that such an incision would fall between the valves without cutting them. After examination and

<sup>1</sup> B.I.O.L. BULL., February, 1907, p. 145. (The literature on the conus arteriosus is given in this article.)

measurement the two halves were imbedded in celloidin and cut into serial sections.

The extreme length of conus is 1 mm. in the mid-ventral line and 1.5 mm. in the mid-dorsal and lateral lines. The ventricle, from apex to junction with conus, has a mean measurement of 5.5 mm. The proportion in mean length of conus to ventricle is therefore 1 to 4.

The conus contains two transverse tiers of valves, each tier consisting of a right and left cusp placed symmetrically with regard to the mid-sagittal plane. The general arrangement agrees closely with that found in *Tarpon*, but the proximal cusps appear to be proportionately more capacious.

The conus in *Megalops* not only projects more freely from the ventricle than in *Tarpon*, but is of greater proportionate length. It would seem to resemble more closely the conus of *Albula* (as described by Boas, '80) except in the absence of the subsidiary valve cusps of the latter.

It should be noticed that the heart described is from a young fish, also that the measurements are, at best, approximate; therefore, comparisons with adults of other genera, if pushed too closely, are apt to be misleading.

The atrio-ventricular valve has three cusps.

A specimen of *Chanos chanos* (Forskål), for which I also have to thank Professor Jordan, presents an easily recognizable vestigial conus arteriosus, but only one tier of valves.

ST. LOUIS, Mo., February 1, 1907.